

Job Title	Senior Software Engineer in Platform and Supply Services, IT - Kingston	Grade	
Job Number		Department	Travel Republic
Reports To	Development Manager	JD date	March 2018
Job Information			
Type of Role		Safety Sensitive	
		Details/Hazards	
Job Purpose			
<p>To be a Senior Software Engineer for Travel Republic in Kingston. Able to work both independently and collaboratively to help design and implement high quality, complex software solutions using best development practices. You will be an effective communicator able to understand, solve and help educate the teams in the technical aspects related to your specialisms.</p>			
Accountabilities:			
Execute	<p>The dnata Travel engineering team are responsible for the growth and evolution of an in-house developed travel platform which is being developed and rolled out across multiple brands, departments and teams across the globe within the dnata Travel group.</p> <p>You will be joining a smart, experienced, fast-moving team who continue to explore new technologies, tools & techniques to both grow this global platform and to service the growing needs of the business that the platform supports.</p> <p>As a Senior Engineer, you will have a proven strong software development background and will help provide guidance and mentoring to the wider team of software developers and QA staff within the Kingston office and offshore teams, while helping to deliver the product roadmap.</p>		
Competencies	<ol style="list-style-type: none"> Iteration: Implements quickly and correctly. Demonstrates regular, incremental, and visible progress. Adjusts well to feedback and changing priorities. Note: Iteration means tangible implementations and designs with which others can interact. Avoids coupling and over-architecting. Specifies, organizes and anticipates: Turns difficult problems and underspecified goals into achievable deliverables. Anticipates dependencies and needs of other team members, users & customers. Defines success and how it will be measured. Self-motivated learning: Learns and understands diverse technologies, techniques and topics out of curiosity. Dives deeper to better understand familiar domains and tools to be able to converse knowledgeably with the engineering and delivery teams. Uses learning to drive improvements in our software and processes. Published artefacts: Creates viewable artefacts intended for the benefit of others within the group. Examples: participates on Slack and documents in Confluence. Performs demos to team members as well as to other stakeholders within agile ceremonies. Speaks at meetups or conferences, arranges and hosts internal brown-bag sessions to include technology demonstrations to the engineering and product teams 		

5. **Recruiting, mentoring and teaching:** Gets involved with recruiting process, such as outreach, screening and interviews. Takes an active interest in new hires and onboarding. Participates in mentoring programs, internally or externally.
6. **Ideas:** Consistently coming up with new, useful ideas. Asks questions and fights status quo bias. Thinks independently. Creates new requests for change and constructively participates in others'. Work with the teams to design fully functional features and innovative solutions that are supported by the architecture.
7. **Communication:** Conveys concepts, suggestions, and goals within teams. Encourage peer discussions on the direction and quality of the platform. Is proactive about keeping peers and line managers up to date. Articulates and persuades. Doesn't "fall off the map". Uses tools (Trello, Slack, Jira, Confluence, email, docs...) effectively.
8. **Database:** Familiar with SQL language. Displays expertise in the databases we use. Very strong at SQL language and performance (including indexes and execution plans). Good understanding of NOSQL and caching technologies such as MongoDB and Redis, as required by the role.
9. **Tooling:** Implements features using the best tools and practices. Consistently looking for ways to increase one's own productivity and feature quality, and those of the team. Highly proficient at Visual Studio and productivity tools (Git/version control, build processes, refactoring & analysis). Strong testing orientation.
10. **Performance and optimization:** Does what it takes to ensure a high-performance application (proactively and reactively). Takes an active and consistent interest in profiling and monitoring. Considers performance tuning part of the shipping process.
11. **Operational awareness:** Ensures that the team's interests are well understood by the Service and Infrastructure teams and vice-versa. Proactively communicates with the Service and Infrastructure teams and works on issues such as availability, backups, monitoring, logging, and documentation.
12. **Security:** Aware of security risks (XSS, SQL injection), knows how they happen and how to avoid them. Avoids unsafe patterns in new code. Familiar with OWASP Top 10.
13. **Distributed systems:** In-depth experience of Service Orientated Architecture and associated principles. Development using Web API, WCF, IIS / self-hosting, OWIN or equivalent middleware.
14. **Web programming:** Strong web development skills and integration with back end services including DNS, HTTP, MVC, JavaScript, HTML, CSS and other web technologies and frameworks.
15. **.NET stack:** An expert at C# with 5y+ experience. Understands the .NET stack, including the CLR, reflection and optimization. Familiarity with .NET core.
16. **Cross-team awareness:** Communicates with other teams formally and informally. In-the-know about other teams' plans, and vice-versa. Actively works to inform and be informed.
17. **Coaching:** Team members feel that they are growing in their roles and know what they need to do to succeed. Figures out individual needs. Actively helps team members develop both soft skills and hard skills. Gives hard feedback when necessary.
18. **Accountability and appreciation:** Holds team members (and themselves) accountable for their commitments, develops a culture of shared responsibility, and publicly recognizes people who have done exceptional work.
19. **Process:** Effective application of Agile software practices and active participation in Agile ceremonies. Have experience of the full software engineering lifecycle, including design, architecture, test automation, deployment automation, monitoring and alerting.
20. **Standards and governance:** Aware-of and follows all appropriate software development guidelines and policies to support the SDLC. Implement and promote test automation, TDD, BDD and strive to keep test coverage as high as possible. Ensure all appropriate software development guidelines and policies are adhered to,

including PCI Compliance, Data Protection, Application Security, technology appropriate coding standards, tools and techniques to support the SDLC.

Qualifications/ skills/ experience / knowledge

Qualification: Degree (or equivalent) in IT or related subject

Experience:

- SOLID code principles
- oWASP Security Principles
- Expert in C# and ideally experience in some other languages such as F#, Java, Scala, Python, Clojure, Golang etc
- Using 3rd party .Net libraries and NuGet
- Strong analytical skills and appreciation of technical risk
- Experienced in automated testing and CI/CD (e.g. TeamCity, Jenkins, Go-CD & Octopus Deploy)
- Networking fundamentals - TCP/IP, WCF bindings, network security
- In-depth experience of IIS, HTTP, Windows & web services, Web API, web sockets, web farms, load balancing etc
- Good understanding of protocols such as SOAP/REST/JSON
- MSBuild & Scripting e.g. PowerShell, CS Script, Python, Ruby, etc
- Architectural patterns such as SOA, GraphQL and Microservices
- Parallel programming e.g. Reactive Extensions
- Event sourcing & Event-Driven Microservices e.g. Rabbit MQ, MSMQ
- Caching strategies & performance tuning e.g. Redis
- Application Performance Monitoring (APM) tools
- NOSQL stores e.g. MongoDB
- SQL Transactions (ACID), Isolation Levels & SQL Hints
- Can design a normalised SQL database
- Understanding of MS SQL/Mongo Query Plans
- ETL (Extract, Transform and Load) e.g. SSIS
- Source control using GIT
- Able to work without continual guidance
- Able to prioritise work and track progress
- Promote an open, friendly and fun environment
- Generate enthusiasm and a sense of pride for both the features you build and the skills you apply to solving problems
- Develop best practices within the development team to ensure that performance and quality standards are met throughout the software development lifecycle
- Mentor less experienced professionals
- Induct new members to your team and instil our common responsibilities and principles
- Deliver 'best of breed' solutions by exploiting recognised industry best practice and ensuring delivery in the most cost-effective way.
- Have great client-facing skills being able to deal well and form good relationships with other technology groups and the business
- In-depth experience of working on multi-tier, high volume, transactional systems and a thorough understanding of the related challenges and how to navigate them
- In-depth knowledge of key technology principles and architectures (e.g. data structures, algorithms, design patterns, application architectures, technologies and solution design)
- In-depth experience of developing and supporting APIs and micro services supplying a service to both internal and external customers

Desirable Experience:

- F# or other functional programming language
- Linux, .NET Core & Kubernetes
- Worked on large scale enterprise systems
- Worked on large scale travel systems

- Experience of software development within the travel industry

Skills and Knowledge:

- Strong analytical and diagnostic skills
- Software development to an advanced level
- Microsoft development technologies and systems
- Good planning skills

Desirable Skills and Knowledge:

- Understanding and commercial experience of high demand web systems and techniques such as caching, multi-threading and asynchronous coding.

Organisation Structure & Career Path

Financial Information